

**Work Order ID 69398**

Tuesday, May 10, 2011 2:54:27 PM



Page 1

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 5/10/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 5/16/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

11-05-10

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3562	Rev E								

100

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2622 extrusion as per Dwg D3562  
2-Deburr and bevel ends for welding

11.05.18

4

110

0.00



QC6- Inspect dimensions to drawing

QC

Memo

0.00

Quality Control

11.05.18

120

0.00



Chemical Conversion Coat per QSI005 4.1

HandFinish

Memo

0.00

Hand Finishing

4 x m-f 11/06/02  
LHX

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 69398

Tuesday, May 10, 2011 2:54:27 PM



Page 2

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Item Name: Step Assembly, LH

Stop



Start Date: 5/10/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 5/16/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

*K 11-06-10*

*4*

*0*

140

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

1- Transfer drill Rivet holes as per dwg D3562.  
2-Touch-up rivet holes with alodine as per dwg d3562  
3-Rivet legs using Magnabond as per dwg D3562.  
\*\*\*\*\*Ensure to wipe off any excess magnabond \*\*\*\*\*  
A/R Magnabond 6398 Batch: *m117870*

*11-06-10*

*4*

*0*

*P70 →*

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

*Sub 6/13*



*44*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3562-041 PAR #: N/A Fault Category: Large Fab/Steps NCR: (Yes) No DQA: OK Date: 11.06.20  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 11/06/21

NCR: <u>69398</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>11/6/19</u>	<u>140</u>	When transferring holes operator/welder realizes he has use two different arms. (D3600-041 + D3650-044).	<u>AS</u> <u>08/12</u>	Scrap + Destn D3562-041 Step extrusion + Rep Work B <u>10/6/20</u>	<u>AS</u> <u>11.06.20</u>	<u>S</u> <u>11/06/14</u>	<u>AS</u> <u>08/12</u>	<u>S</u> <u>11/06/19</u>
		confirm the step to have holes in wrong location R.C. LOR. Lack of Attention when pulling mts.		<u>Be added in AS per 007005</u>				<u>S</u> <u>11/06/19</u>

NOTE: Date & initial all entries

# Work Order ID 69398

Tuesday, May 10, 2011 2:54:27 PM



Page 3

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 5/10/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 5/16/2011 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160



Large Fab

Large Fab

Large Fab

Memo

0.00

1-Weld end caps as per Dwg d3562 & QSI 004. Inspect for foreign objects as per QSI 024.

A/RAluminum Rod

2-Grind end cap welds flush as per Dwg D3562

0.00

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

Memo

0.00

Subsedy

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

Subsedy

11.06.13

A.E 11.06.13 (x4) 0

41  
41

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 69398

Tuesday, May 10, 2011 2:54:27 PM



Page 4

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 5/10/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 5/16/2011 Req'd Qty: 4.00

Customer:

Reference:

Run Start






Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00				4 LH	0	0	u/06/14
200  Powdercoat Powder Coating M116964	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo START TIME: 8:40 OVEN TEMPERATURE: 320 FINISH TIME: 9:10	0.00  0.00				4 LH	0	0	M-11/06/15
210  HandFinish Hand Finishing	Wing Walk as per dwg QSI005 4.4 Batch M117867  Memo	0.00  0.00				4 LH	0	0	u/06/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 69398

Tuesday, May 10, 2011 2:54:27 PM



Page 5

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 5/10/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 5/16/2011 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

4 16-6-15

230

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

PTD

240

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/16

MF  
11-08-16

W/O: 69398		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11-06-15	230	remove step permanent change	BE	11-06-20		✓ 11-26-15	

Part No: D3562-041 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, May 10, 2011 2:54:33 PM

Page 1

Work Order ID: 69398

Parent Item: D3562-041

Parent Item Name: Step Assembly, LH

Start Date: 5/10/2011

Required Date: 5/16/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM  
 IPP rev B ECN 987 07.10.09 EC verified by: DD  
 IPP Rev:C ECN1048 07-12-18 DD verified by:ec  
 IPP Rev:D 08-07-28 add chemical conversion coat DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

100

Each

100.0000

1

4



Step Extrusion

Location

Loc Qty

Loc Code

HALL

9

64409

9

WA

91

46910

2

66970

89

D2734

Manufactured

No

140

Each

35.0000

2

8



Step End Plate

Location

Loc Qty

Loc Code

WA015

369537

35

66143

35

D3560-041

Manufactured

No

140

Each

1.0000

1

4



Arm Weldment

Location

Loc Qty

Loc Code

WA013

347863 = 1

1

48385

1

369615 = 2

140

Each

0.0000

1

4

D3560-043

Manufactured

No



Arm Weldment

11.05.18

11.06.09

11.06.09

11.06.09 369613 = 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, May 10, 2011 2:54:33 PM

Page 2

Work Order ID: 69398



Parent Item: D3562-041



Parent Item Name: Step Assembly, LH

Start Date: 5/10/2011

Required Date: 5/16/2011

Start Qty: 4.00

Required Qty: 4.00

MS20600-AD4W5

Purchased

No

160

Each

543.0000

32

128



Blind Rivet

*11.06.10*

Location

Loc Qty

Loc Code

ST321

*117885*

537

114382

237

116289

100

117505

200

WA018

6

111477

6

*28*

*100*

Tuesday, May 10, 2011 2:54:33 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

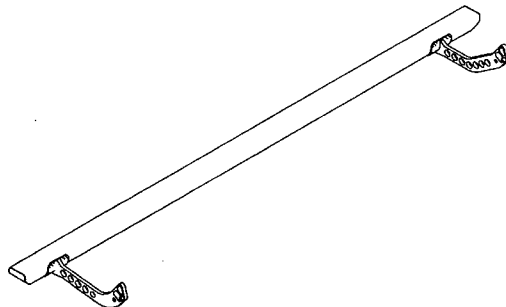
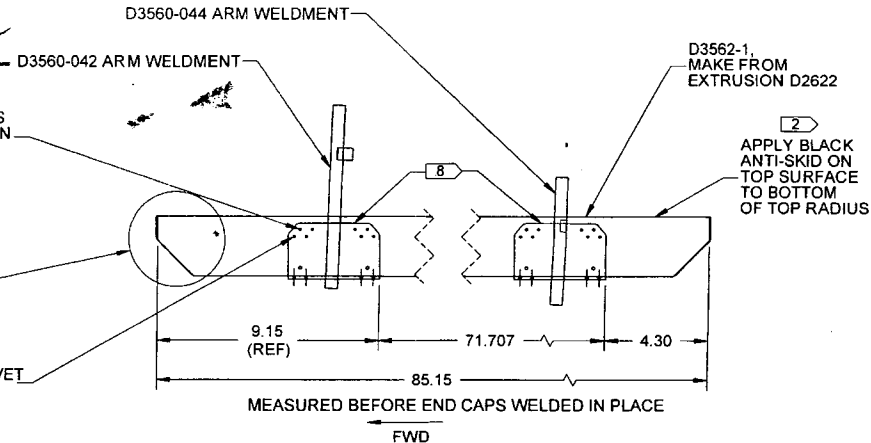
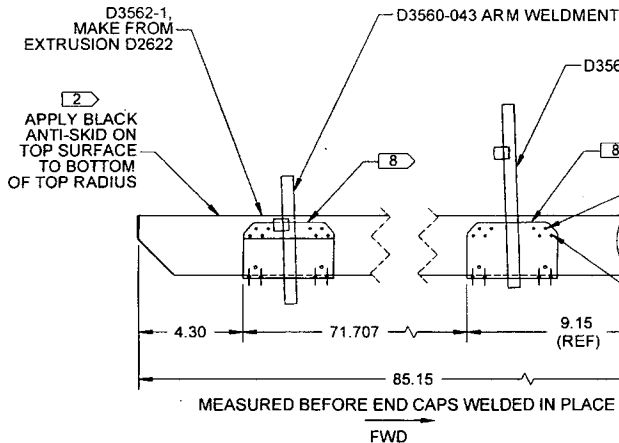
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

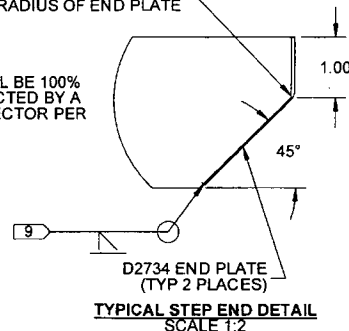
WITHOUT NOTICE  
WORK ORDER  
NO. 6935



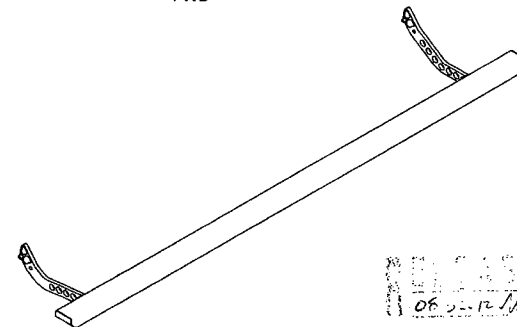
**D3562-041 LH STEP ASSEMBLY**

ROUND CORNER OF EXTRUSION TO MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004



**TYPICAL STEP END DETAIL  
SCALE 1:2**



**D3562-042 RH STEP ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH:
  - i) CHEMICAL CONVERSION COAT STEP EXTRUSION PER DART QSI 005 4.1 BEFORE ASSEMBLY
  - ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
  - iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 8.79 lbs
- 8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.
- 9) WELDING: PER DART QSI 004

QTY -041	QTY -042	P/N	DESCRIPTION
X	X	D3562-041	LH STEP ASSEMBLY
		D3562-042	RH STEP ASSEMBLY
1		D3560-041	ARM WELDMENT
	1	D3560-042	ARM WELDMENT
1		D3560-043	ARM WELDMENT
	1	D3560-044	ARM WELDMENT
32	32	MS20600AD4W5	RIVET
2	2	D2734	END PLATE

E	ADD QTY (2) TO D2734 END PLATE ON D3562-042	PH	08.01.11
D	REMOVE D2808 SPACER NOTE, REDRAWN IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN	gp	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	sk		
CHECKED	KE	DRAWING NO.	REV. E
MFG. APPR.	MP	D3562	SHEET 1 OF 1
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	STEP ASSEMBLY	1:5
DATE	08.01.11	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries